



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/582,499

06/09/2006

Antje Brueck-Scheffler

27391U

2887

34375 7590 07/20/2010

NATH & ASSOCIATES PLLC  
112 South West Street  
Alexandria, VA 22314

EXAMINER

CARTER, KENDRA D

ART UNIT

PAPER NUMBER

1627

MAIL DATE

DELIVERY MODE

07/20/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/582,499	<b>Applicant(s)</b> BRUECK-SCHEFFLER, ANTJE	
	<b>Examiner</b> KENDRA D. CARTER	<b>Art Unit</b> 1627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 21-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/28/10;4/26/10</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

The Examiner acknowledges the applicant's remarks and arguments of April 26, 2010 made to the office action filed November 24, 2009. Claims 1-41 are pending. Claims 1-41 are amended, and claims 21-41 are withdrawn. The Examiner would like to note that in the previous office action a clerical error was made. In the office action summary, the claims withdrawn are 7-41 and the claims rejected are 1-6. As indicated in the office action filed November 24, 2009, the first paragraph states that claims 21-41 are withdrawn, and the 35 U.S.C. 103(a) rejections are for claims 1-20. Thus, for clarification, the office action summary should read claims 21-41 withdrawn and claims 1-20 rejected.

The Examiner would like to note that the claim identifiers for claims 21-41 should state currently amended and withdrawn.

In light of the Wurst et al. reference being commonly owned and falling within the 35 U.S.C. 103(c) exception, the rejection of claim 5 over Nishibe et al., Saidi et al., Lintz et al. and Wurst et al. is withdrawn.

For the reasons in the previous office action and below, the Applicant's arguments of all other 35 U.S.C. 103(a) rejections were found not persuasive, thus the rejections are upheld.

Due to withdrawal of the rejection of claim 5, the new 35 U.S.C. 103(a) rejection is made below, thus providing a NEW NON-FINAL rejection. The other previous 35 U.S.C. 103(a) rejections are repeated below. The Applicant's arguments are also addressed below. The arguments in regards to Wurst et al. are moot in view of the new rejection.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**1) Claims 1-4 and 7-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishibe et al. (US 2006/0166953 A1) in view of Saidi et al. (US 6,241,969 B1) and Lintz et al. (US 2004/0247628 A1).**

Nishibe et al. teach a ciclesonide containing sterile aqueous suspension sterilized by autoclaving (see abstract; addresses claims 1, 3 and 4). The suspension may comprise suspending agents and wetting agents such as hydroxypropylmethylcellulose (i.e. non-ionic excipients and suspending agent; see paragraphs 38 and 42; addresses claims 1, 9, 10, 11 and 13). Ciclesonide is dispersed in an aqueous medium including the excipients (see page 3, paragraph 42, lines 5-8) to give a white uniform aqueous suspension before being autoclaved at 115 degrees C for 30 minutes, at 121 degrees C for 20 minutes or at 126 degrees C for 15 minutes (see page 3, paragraph 43 and 49; addresses claims 15-19).

Nishibe et al. does not specifically teach that the composition is suitable for nebulization (claim 1), nor that the composition comprises the specific non-ionic agent in claims 2, 7 and 8. Nishibe et al. also does not teach the osmolality range in claim 20, nor. Nishibe et al. does not specifically teach the motivation for the specific suspending agent polysorbate (claim 14), nor the pH modifying agents of claim 12.

Saidi et al. teach an aqueous composition to treat ailments and diseases of the respiratory tract, particularly the lungs, comprising a corticosteroid that can be delivered through a nebulizer (see abstract). The composition comprises an osmolality agent such as glucose such that the osmolality of the composition is from about 280-300 mosmol/kg (see column 7, lines 3-9; addresses claims 1, 7, 8 and 20). The

Art Unit: 1627

composition also comprises a surfactant such as sorbitan esters (Tween series; i.e. polysorbate; see column 8, line 57; addresses claim 14).

Lintz et al. teach pharmaceutical kits for the preparation of liquid composition that are administered as aerosols through nebulization (see abstract and paragraph 18). Drugs to be delivered include ciclesonide (see paragraph 19) that can be administered with excipients such as citric and tartaric acid to adjust the pH (see paragraph 25) and surfactants to increase the wettability of the active compound or to improve the dissemination of the aerosol droplets in the lungs (see paragraph 27). Preferable surfactants include Tween 60 (i.e. polysorbate; see paragraph 27, last two lines).

To one of ordinary skill in the art at the time of the invention would have found it obvious and motivated to combine the method of Nishibe et al. and providing the composition in a nebulizer because Saidi et al. teach that compositions can be made with corticosteroids to be delivered through a nebulizer to provide treatment for ailments and diseases of the respiratory tract (see abstract).

To one of ordinary skill in the art at the time of the invention would have found it obvious and motivated to combine the method of Nishibe et al. and providing the osmolality agents of claims 2, 7 and 8 and at the osmolality range of claim 20 because Saidi et al. teach nebulizer compositions comprising corticosteroids that have an osmolality agent such as glucose such that the osmolality of the composition is from

Art Unit: 1627

about 280-300 mosmol/kg (see column 7, lines 3-9). Buffers may be used to adjust the pH (see column 6, lines 64-66).

To one of ordinary skill in the art at the time of the invention would have found it obvious and motivated to combine the method of Nishibe et al. in view of Saidi et al. and providing an organic acid of claim 12 as a pH modifying agent because Saidi et al. and Lintz et al. teach that nebulized composition of drugs such as ciclesonide can be administered with pH modifiers. Particularly, Lintz et al. teach that organic acids such as citric and tartaric acid to adjust the pH (see abstract and paragraphs 18, 19 and 25).

To one of ordinary skill in the art at the time of the invention would have found it obvious and motivated to combine the method of Nishibe et al. and providing the specific suspending agent polysorbate because Lintz et al. teach that nebulized composition of drugs such as ciclesonide can be administered with excipients such as surfactants to increase the wettability of the active compound or to improve the dissemination of the aerosol droplets in the lungs (see paragraph 27). Preferable surfactants include Tween 60 (i.e. polysorbate; see paragraph 27, last two lines).

In regards to claim 16, since Nisibe et al. adds ciclesonide to the non-ionic agent, it would be obvious to one skilled in the art to also add ciclesonide to the non-ionic agent Saidi et al. to adjust the osmolality.

Art Unit: 1627

**2) Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishibe et al. (US 2006/0166953 A1) in view of Saidi et al. (US 6,241,969 B1) and Lintz et al. (US 2004/0247628 A1) as applied to claims 1-4 and 7-20, in further view of Allen et al. (J Allergy Clin Immunol, Sept 2003, vol. 112, no. 3, pp. s7-s40) and ACS Registry (Feb 1995, pg 1).**

The teachings of Nishibe et al., Saidi et al. and Lintz et al. are as taught above for claims 1-4 and 7-20.

Nischibe et al., Saidi et al. and Lintz et al. do not teach the ciclesonide derivatives of claim 5.

Allen et al. teach that CIC-AP is the active metabolite of ciclesonide in the lungs (see figure 10).

ACS Registry identifies CIC-AP as  $16\alpha,17-(22R,S)$ -cyclohexylmethylene-dioxy- $11\beta,21$ -dihydroxypregna-1,4-diene-3,20-dione, and as the active metabolite of ciclesonide.

To one of ordinary skill in the art at the time of the invention would have found it obvious and motivated to combine the method of Nishibe et al. in view of Saidi et al. and providing the ciclesonide derivatives of claim 5 because Allen et al. and the ACS



Art Unit: 1627

registry identify 16 $\alpha$ ,17-(22R,S)-cyclohexylmethylene-dioxy-11 $\beta$ ,21-dihydroxypregna-1,4-diene-3,20-dione as the active metabolite of ciclesonide (see page 1, paragraph 6).

**3) Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishibe et al. (US 2006/0166953 A1) in view of Saidi et al. (US 6,241,969 B1) and Lintz et al. (US 2004/0247628 A1) as applied to claims 1-4 and 7-20, in further view of Sambuco et al. (US 2005/0175546 A1).**

The teachings of Nishibe et al., Saidi et al. and Lintz et al. are as taught above for claims 1-4 and 7-20.

Nischibe et al., Saidi et al. and Lintz et al. do not teach the particle size of ciclesonide as in claim 6.

Sambuco et al. teach an aqueous suspension of sterile micronized drug particles, particularly corticosteroids such as ciclesonide, administered by inhalation, which produces homogenous dispersions of particles characterized by optimal size and size distribution (see abstract and paragraph 29). The particles are preferably less than 7 $\mu$ m (see paragraph 33), which can more easily dissolve in the lung fluids and penetrate into the cells in a better way, giving rise to a prolonged activity (see paragraph 39).

Art Unit: 1627

To one of ordinary skill in the art at the time of the invention would have found it obvious and motivated to combine the method of Nishibe et al. in view of Saidi et al. and providing the particle sizes of claim 6 because Sambuco et al. teach that particle sizes less than  $7\mu\text{m}$  (see paragraph 33) can more easily dissolve in the lung fluids and penetrate into the cells in a better way, giving rise to a prolonged activity (see paragraph 39).

### ***Response to Arguments***

Applicant's arguments have been fully considered but they are not persuasive.

The Applicant's argue that there is no motivation to combine the Nishibe et al., Saidi et al. and Lintz et al. references. Particularly, the suspension that is taught by Nishibe et al. is not suitable for nebulization because it does not contain an agent for adjusting the osmolality of the suspension. Further, the Nishibe et al. reference is faced with the technical problem of providing a sterile aqueous ciclesonide suspension that does not suffer from clogging and a suspension that is suitable for nebulization, i.e. inhalative administration. The Saidi et al. and Lintz et al. references does not teach autoclaving, so the reference cannot provide any motivation to solve the technical problems associated with autoclaving.

The Examiner disagrees because the motivation to combine the references is to make a sterile inhalation formulation of ciclesonide. Nishibe et al. teach a method of sterilizing a suspension of ciclesonide. Saidi et al. provides the motivation to make a nebulizer formulation of ciclesonide because Saidi et al. teach that composition can be

Art Unit: 1627

made with corticosteroids to be delivered through a nebulizer to provide treatment for ailments and diseases of the respiratory tract (see abstract). Lintz et al. provides the teaching that nebulized compositions of drugs such as ciclesonide can be administered with excipients such as surfactants to increase the wettability of the active compound or to improve the dissemination of the aerosol droplets in the lungs (see paragraph 27).

The Applicant further argues that there is no teaching in the Nishibe et al., Saidi et al., Lintz et al. and Sambuco references to select only non-ionic agents. Further, Sambuco et al. does not address any of the technical problems associated with autoclaving, nor cure the deficiencies of Nishibe et al., Saidi et al. and Lintz et al.

The Examiner disagrees because Saidi et al. not only provides the motivation to make a nebulizer composition (see argument above) of Nishibe et al. but also teach that nebulizer compositions comprising corticosteroids have an osmolality agent such as glucose such that the osmolality of the composition is from about 280-300 mosmol/kg (see column 7, lines 3-9). Sambuco et al. is used to teach the importance of particle size when administering to the lungs, which is used to reject claim 6.

### ***Conclusion***

No claims allowed.

Art Unit: 1627

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KENDRA D. CARTER whose telephone number is (571)272-9034. The examiner can normally be reached on 9:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on (571) 272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kendra D Carter/  
Examiner, Art Unit 1627

/SREENI PADMANABHAN/  
Supervisory Patent Examiner, Art Unit 1627